COMMONWEALTH OF MASSACHUSETTS

HEALTH POLICY COMMISSION

CHART Phase 2:

Implementation Plan

Signature Healthcare Brockton Hospital

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Version: 3

Introduction

This Implementation Plan details the scope and budget for Signature Healthcare Brockton Hospital's ("Contractor") Award in Phase 2 of the Health Policy Commission's (HPC) Community Hospital Acceleration, Revitalization, and Transformation (CHART) Investment Program. The Implementation Plan is incorporated by reference into and is subject to the requirements of the Phase 2 Award Contract, including the Phase 2 Terms & Conditions.

Many capitalized terms appearing in the Implementation Plan are defined in the Phase 2 Terms & Conditions or the Phase 2 Request for Proposals (RFP). In addition to capitalized terms, the Implementation Plan may include other acronyms and/or abbreviations whose meaning is understood by Contractor and the HPC in the context of the Implementation Plan. If there is disagreement concerning the meaning of a term, acronym, or abbreviation, the HPC's interpretation shall govern.

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Key personnel

Name	Title	CHART Phase 2 Role
Kim Hollon	President and Chief Executive Officer	
Vera DePalo, MD	CMO, Chief of Medicine	Clinical and Operational Investment Director
Deborah Jean Parsons, PhD	Grants Coordinator/Writer	Project Manager
Kim McCarthy	Controller	Financial Designee

Target population(s)

Target population 1*:

- **Definition**: All admissions**,***
- **Quantification**: 7,582 discharges per year

Target population 2:

- **Definition**: Lower acuity emergency department visits between 3:00-11:00pm
- **Quantification**: 13,751 visits per year

* Required target population for cohort-wide standard measures
** Definition includes all payers and aged 18+; excluding OB, deaths, transfers to acute inpatient, and discharge to acute rehab
*** Excludes DSTI-served populations: MassHealth Primary Care Clinician Plan and Tufts Medicare Preferred, Senior Whole Health

Aim Statement(s)

Primary Aim Statement	
Aim 1	Reduce 30-day readmissions by 20% for all admitted patients (excluding patients served by DSTI) by the end of the 24 month Measurement Period.
Aim 2	Reduce the length of stay by 15% in the emergency department's 3-11pm Express Care shift by the end of the 24 month Measurement Period.

Secondary Aim Statement*
Reduce patient harm by 15% for all admissions and ED visits, as measured by the patient harm composite measure, by the end of the 24 month Measurement Period.

*Your secondary aim statement is a performance measure only and is not tied to Achievement Payment.

Baseline performance – Readmission reduction

		Jan 14	Feb 14	Mar 14	Apr 14	May 14	Jun 14	Jul 14	Aug 14	Sep 14	Oct 14	Nov 14	Dec 14	Avg.
Hospital-Wide	Readmits	71	66	89	105	98	105	88	96	101	104	81	47	88
	Discharges	642	528	609	671	634	643	630	643	623	655	625	679	632
	Rate (%)	11.1	12.5	14.6	15.6	15.5	16.3	14.0	14.9	16.2	15.9	13.0	6.9	13.9
Target Pop	Readmits	71	66	89	105	98	105	88	96	101	104	81	47	88
	Discharges	642	528	609	671	634	643	630	643	623	655	625	679	632
	Rate (%)	11.1	12.5	14.6	15.6	15.5	16.3	14.0	14.9	16.2	15.9	13.0	6.9	13.9

Baseline performance – Reduce ED LOS

		Jan 14	Feb 14	Mar 14	Apr 14	May 14	Jun 14	Jul 14	Aug 14	Sep 14	Oct 14	Nov 14	Dec 14	Avg.
ED Volume	ED – all shifts	5370	4718	5166	5501	5586	5589	5761	5503	5556	5447	5031	5607	5403
	ED 3-11 shift	2399	2039	2303	2420	2484	2580	2613	2531	2541	2468	2241	2496	2426
	ED 3-11 Express Care	1055	946	1076	1121	1183	1247	1240	1208	1204	1184	1067	1220	1146
ED LOS	ED – all shifts (min)	144	144	144	168	156	162	162	168	162	162	150	168	157
	ED 3-11 shift (min)	150	156	150	180	162	168	168	174	162	168	162	186	168
	ED 3-11 Express Care (min)	150	150	132	156	138	144	144	150	144	150	138	162	144

Baseline performance – Culture of safety

	Jan 14	Feb 14	Mar 14	Apr 14	May 14	Jun 14	Jul 14	Aug 14	Sep 14	Oct 14	Nov 14	Dec 14	Total
All Inpatients	1081	923	1016	1069	1034	1041	1013	1068	1028	1071	1037	1090	12471
Do No Harm Events	80	68	67	73	64	60	40	54	46	79	72	72	775

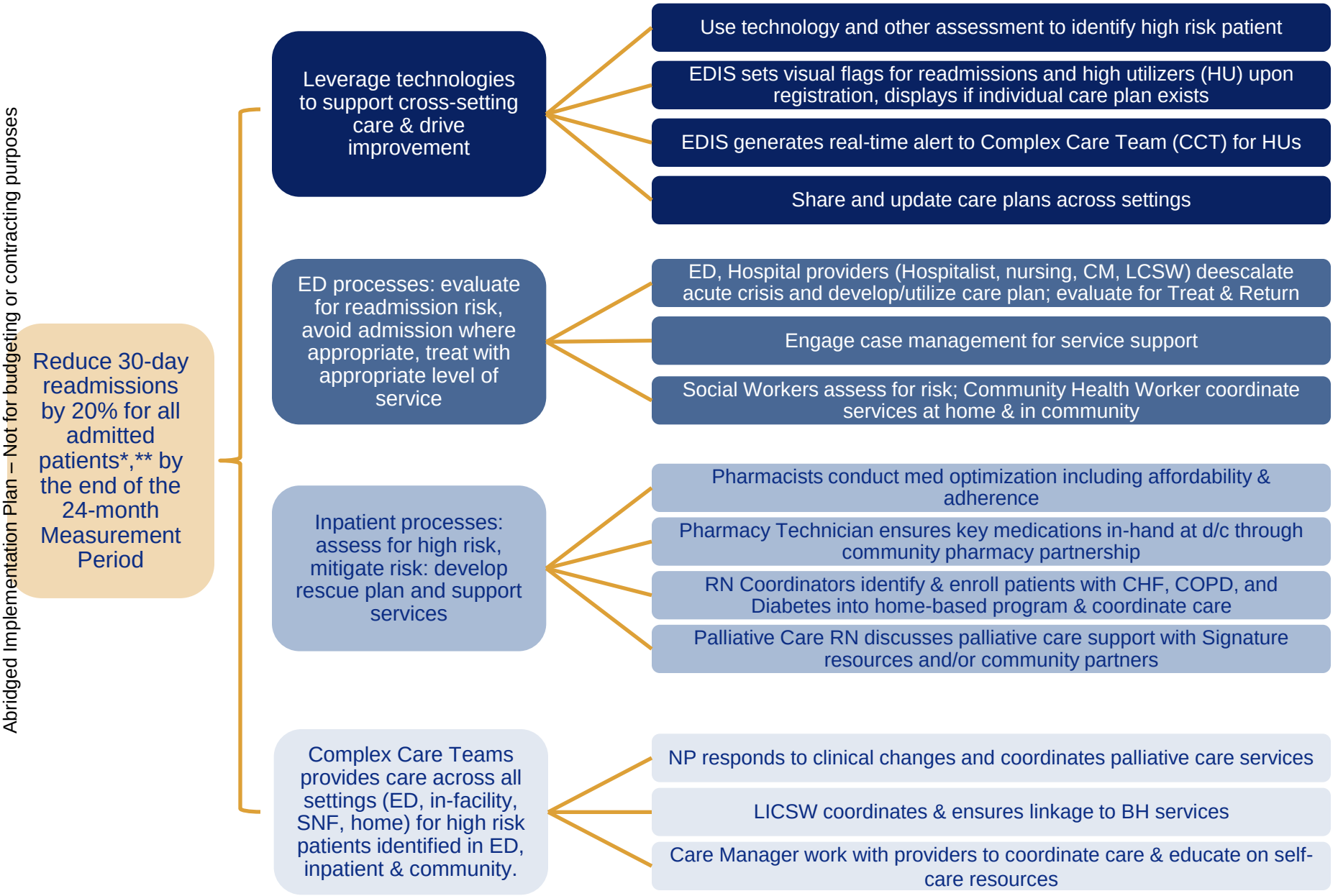
Composite measure of patient harm includes:

1. Unplanned CCU transfers
2. Inpatient falls
3. ED patient falls
4. Clean surgical site infections
5. Medication errors
6. Deaths

Estimated monthly impact

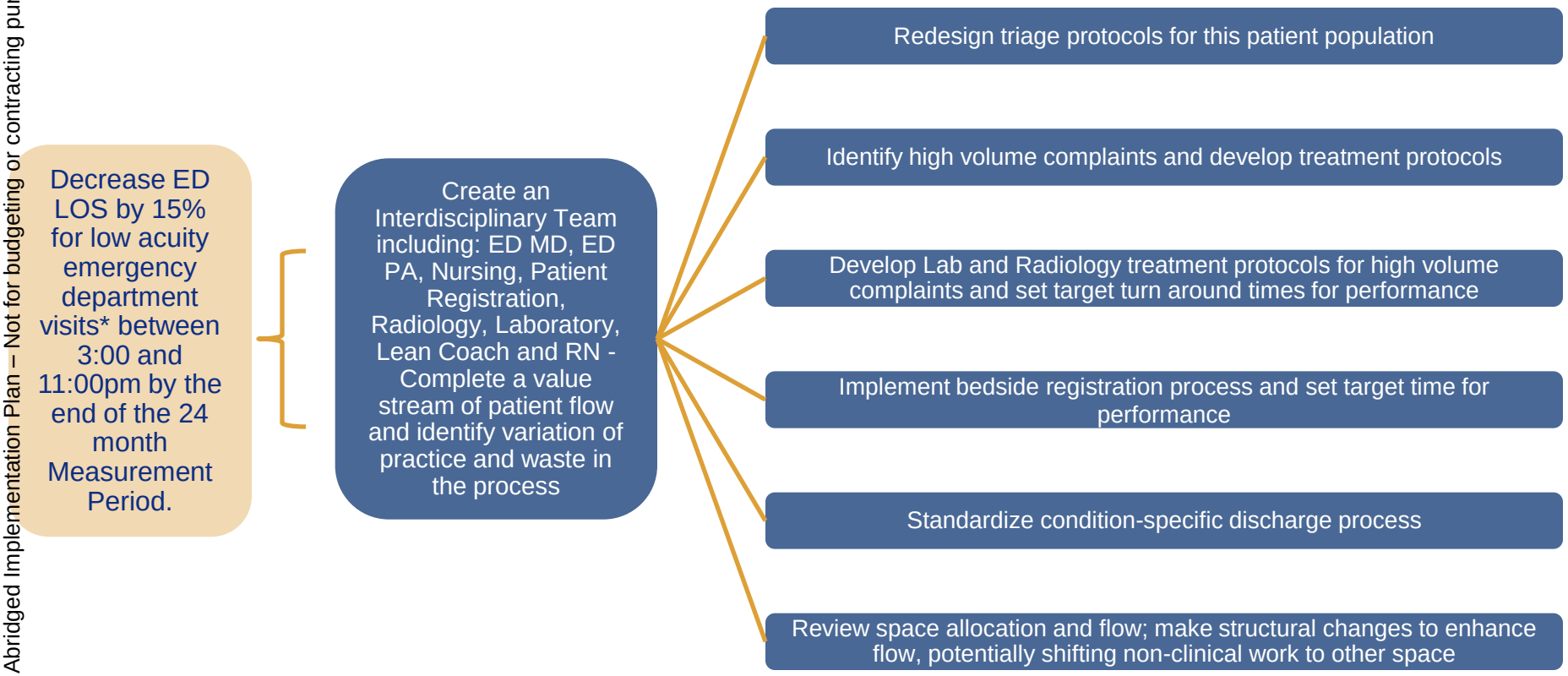
	Current Expected Served	Current Expected Events	New Expected Avoided Events	New Expected Events
30-day readmission reduction	7,582 discharges	Avg. readmission rate:13.9% .139 * 7,582 = 1,054 readmissions/year, Avg. 88/month	Goal: 20% reduction 0.2 * 1,054 = 211 avoided readmissions/year, Avg. 18/month	1,054 – 211= 843 readmissions/year, Avg. 70/month
Reduce ED LOS in 3-11 Express Care	Avg. LOS rate: 144 minutes	Avg. LOS rate: 144 minutes	Goal:15% decrease 0.15 * 144 = 21.6 min. reduction	144 – 21.6 = 122.4 min
Culture of Safety	12,471 patients	775 events	Goal: 15% reduction 0.15 * 775 = 116	775 – 116 = 659

Driver Diagram – Readmissions



*Excluding DSTI population
**Includes all payers and aged 18+; excluding OB, deaths, transfers to acute inpatient, and discharge to acute rehab

Driver Diagram – ED LOS

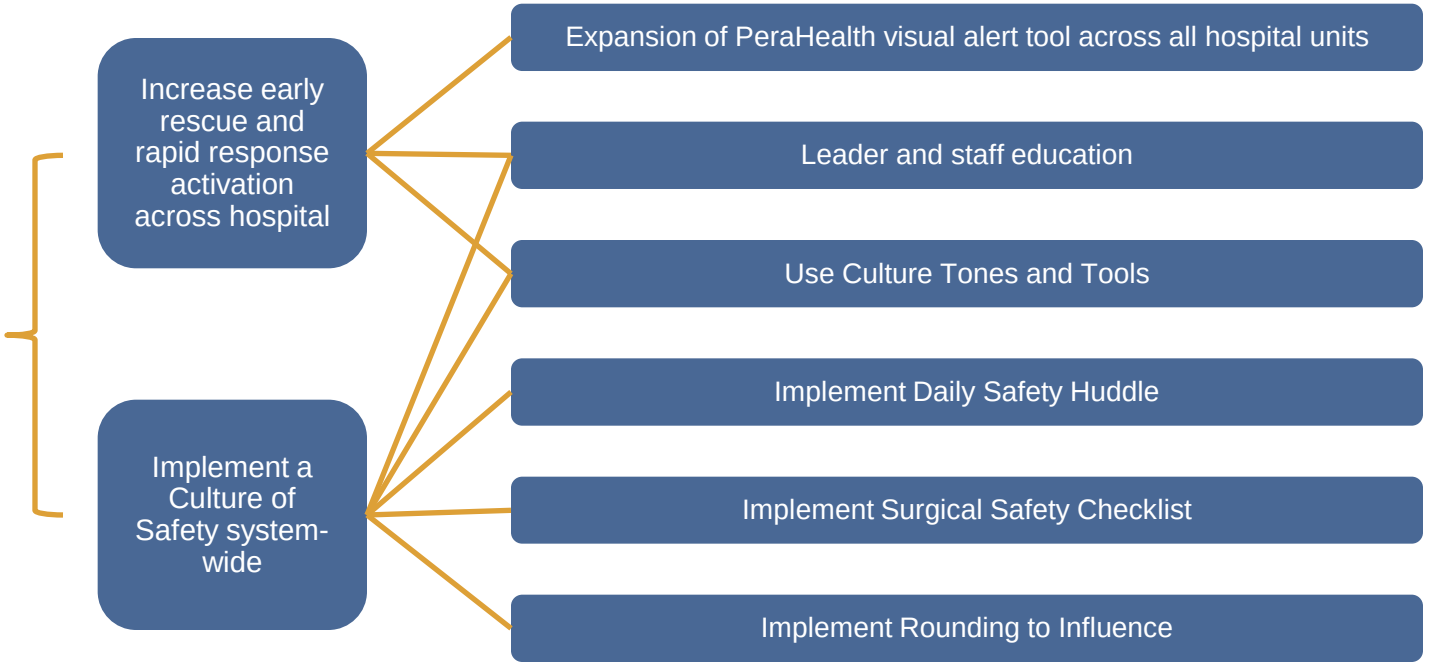


*All Express Care patients

Driver Diagram – Culture of Safety

Reduce harm by 15% for all admissions and emergency department visits, by the end of the 24 month Measurement Period. Composite harm measured as:

1. unplanned CCU transfers
2. inpatient falls
3. ED patient falls
4. clean surgical site infections
5. medication errors
6. unexpected deaths



Service model – Reduce readmissions (1 of 2)

Narrative description

Patients will be identified in the ED, reviewed and assessed by case management for HU status and/or risk for readmission and flagged using visual signals established by IT and registration. The flagging system includes clinician comments and current care plan. Patients will be identified for risk based on LACE and Verisk tools. LACE and/or other assessment/ tool is scored at the point of ED and inpatient registration and the patient is flagged as high risk when presenting. Verisk Health will be used to generate lists of patients in top 1% risk category for ED or hospital admission that will be sent to registration to be flagged. Verisk will be invaluable to this process of identifying patients at the population level to ensure that patients are flagged as high risk prior to coming to ED. Lists of patients flagged for HU/readmission risk will be continually updated by IT and registration.

Before patients are discharged from the ED, hospital staff and providers will deescalate the acute crisis, develop a care plan, and engage case management for service support. The social work department will coordinate services at home and in the community.

Patients who are admitted to the hospital will be assessed for HU with the LACE tool and their risk will be mitigated by developing and sharing a rescue plan and coordinating support services upon discharge. Case management and hospitalists will identify and specify outpatient services and primary care providers. Patients will be identified for a consult from the palliative care nurse based on the following criteria: all patients currently in a nursing home, all patients in the intensive care unit, and patients over 80 years old who have had two or more ED visits and/or hospitalizations in the past year. The palliative care nurse will discuss and coordinate palliative care and support from internal and external resources.

Medication therapy management and patient compliance are cornerstones for successful treatment of patients. The pharmacists will focus on three patient populations: Over 65 years of age and taking more than 10 medications, CHF, and COPD. These patients will be assessed to ensure safe, cost effective medication therapy, compliance of therapy and any other medication concerns. The pharmacist will work with the patient/family and physician to outline goals of therapy, optimize medication regimens, review affordability, compliance and educate as needed. Signature will ensure that patients have necessary medications at the time of discharge via pharmacy technician and through our pharmacy partnership with Walgreens. After discharge, patients will be called by the hospital pharmacist at 48-72 hours and as needed to address any concerns they may have and to check on their medication therapy. The pharmacist will provide consultative support to the nurses/students and review the biometric information to assess the effectiveness of the medication therapy. The pharmacist will be responsible for maintaining a record of their patients and initiating contact if they are readmitted.

Service model – Reduce readmissions (2 of 2)

Narrative description

Patients with CHF and COPD will be identified and enrolled into the home-based program, Homeward Bound, by the CHF and COPD coordinators respectively. Homeward Bound was specifically designed for patients who are discharged from the hospital without the adequate level and length of support needed to maintain their treatment regime and stabilize their conditions. Most of these patients do not qualify for visiting nurse programs because they work part-time or do not have insurance coverage for this service. Homeward Bound is a voluntary program which provides coordination of care, daily monitoring of biometric data, virtual pharmacy support, and weekly in-home support from nursing students. Nursing students are supervised by faculty sponsors from participating nursing schools. Patients in Homeward Bound receive a scale and blood pressure cuff that are connected wirelessly to an iPad mini so that their biometrics are sent to and monitored daily by the care team and shared with all providers via EHR. The telehealth nurse collects biometrics from patients and communicates daily with home-based team to detect and respond to clinical changes; two telehealth nurses provide coverage during the week and on weekends for patients. Nursing students teams conduct in-home visits during the week and on weekends. Homeward Bound patients receive in-home support, care coordination and daily monitoring for as long as desired by the patient. Patients discharge themselves from this program.

For a cohort of high-risk patients with diabetes, we will use iHealth kits. This technology uses an iPhone with equipment for patients to monitor biometric data and share this with any provider in their care plan through a HIPAA-compliant cloud. A care manager follows the biometric data on patients and makes sure patients are following care plans. This implementation builds on a successful pilot Signature conducted using this technology with patients who have Type 1 diabetes.

Patients who have other complex and/or chronic conditions will be identified by hospital case manager and referred to the Complex Care Team, made up of a nurse practitioner, care manager, and social worker. It is expected that the majority of patients followed by this team will be identified by LACE and the HU roster from baseline data. This team will develop individual care plans, provide care coordination, education on self-care resources, and access to community-based services to patients via a virtual clinic. A member of the CCT will also participate in clinical rounds with a hospitalist and pharmacist on HUs in the inpatient setting. A licensed social worker will provide behavioral health care and coordination of community-based services for those patients with co-morbid behavioral health conditions. The care manager will serve as the liaison between the hospital and outpatient and community-based services. The team will follow patients across the continuum of care: in the ED, inpatient, and at home/post-acute care as needed, and will work with patients for 30 – 60 days to ensure services are in place and patients are stabilized.

All of the above interventions are available to all patients regardless of insurance payer.

Service model – Decrease LOS in ED (3–11pm shift)

Narrative description

In order to decrease the length of stay for patients with low acuity conditions who present in the ED during the busiest time from 3 – 11 pm, Signature will create an interdisciplinary team which will include ED physician, ED physician assistant, nursing, patient registration, radiology, laboratory team, and lean coach. This team will complete a value stream map of patient flow and identify variation of practice and waste in the process. With coaching and support from the interdisciplinary team, the workflow, processes, and space will be redesigned to maximize time and effort of ED staff. Six key strategies will be deployed: redesign of triage protocols; identification of high volume chief complaints with development of more efficient treatment protocols; work with Lab and Radiology to establish protocols and set target turn-around times; implementation of bedside registration; standardization of discharge process; and review of space allocation and structural changes to enhance patient flow.

This redesign will be developed and adapted as the team conducts its work over two years.

Service model – Reduce harm for admissions and ED visits

Narrative description

Signature has committed to implementing a culture of safety over the next five years. With investments from CHART Phase 1, Signature partnered with Healthcare Performance Improvement to design a culture of safety intervention. The goal of this intervention is to reduce serious preventable harm to patients by 15% in two years. This intervention includes training in leader skills of high reliability organizations, non-technical skills for all staff to use to prevent human error that leads to patient harm, and learning organizational tools to accelerate improvements.

As part of harm reduction, the hospital will expand the use of PeraHealth across all units in the hospital. Use of this visual alert tool is intended to increase and or promote early rescue and avoid rapid response team activation, ultimately providing more timely and responsive care to patients. Implementation of the patient safety culture intervention begins with education of leaders on specific leader skills, such as starting every meeting with a safety message and putting safety first for every operational decision, and how to deploy these skills. The next step is to educate staff and medical staff on the non-technical skills for preventing human error, such as paying attention, communicating clearly, and critical thinking. This intervention will use culture tones and tools and will implement daily safety huddles, surgical safety checklists, and rounding to influence.

The final phase in safety culture intervention is habit formation for leader skills and non-technical skills. The initial phase will take from 12 to 18 months to complete and will entail coaching and measures of habit formation. The goal of this intervention is to reduce serious preventable harm as measured by a 15% reduction in the patient harm composite measure within two years.

Service worksheet – Reduce readmissions

Service Delivered

- **X** Care transition coaching
- **X** Case finding
- **X** Behavioral health counseling
- **X** Engagement
- **X** Follow up
- Transportation
- Meals
- Housing
- **X** In home supports
- Home safety evaluation
- Logistical needs
- **X** Whole person needs assessment
- **X** Medication review, reconciliation, & delivery
- **X** Education
- **X** Advocacy
- **X** Navigating
- Peer support
- **X** Crisis intervention
- Detox
- Motivational interviewing
- **X** Linkage to community services
- **X** Physician follow up
- Adult Day Health
- **X** Palliative care services
- **X** Complex care management
- **X** Telehealth & home-based program

Personnel Type

- **X** Hospital-based nurse
- **X** Hospital-based social worker
- **X** Hospital-based pharmacist
- **X** Hospital-based NP/APRN
- **X** Hospital-based behavioral health worker
- **X** Hospital-based community health worker
- **X** Hospital-based pharmacy tech
- Hospital based psychiatrist
- Community-based nurse
- Community-based social worker
- Community-based pharmacist
- Community-based behavioral health worker
- Community-based psychiatrist
- Community-based advocate
- Community-based coach
- Community-based peer
- Community agency
- **X** Physician
- **X** Palliative care
- EMS
- Skilled nursing facility
- **X** Home health agency
- **X** Telehealth Nurse
- **X** Nursing students
- **X** School of Nursing Faculty
- **X** Transition Case Manager
- **X** Transition Social Worker
- **X** Virtual pharmacist
- Other: _____

Service Availability

- **X** Mon. – Fri.
- **X** Weekends
- **X** 7 days
- **X** Holidays
- **X** Days
- **X** Evenings
- Nights
- Off-Shift
  Hours ____

Service worksheet – Decrease ED LOS

Service Delivered

- **X** Value stream mapping of ED
- **X** Identify variations in practice
- **X** Identify waste in process
- **X** Redesign triage protocols
- **X** Identify high volume complaints
- **X** Develop treatment protocols'
- **X** Develop Lab & Radiology treatment protocols
- **X** Implement bedside registration
- **X** Standardize discharge process
- **X** Review space allocation and flow
- **X** Make structural changes

Personnel Type

- **X** Hospital-based ED nurse
- Hospital-based social worker
- Hospital-based pharmacist
- Hospital-based NP/APRN
- Hospital-based behavioral health worker
- Hospital based psychiatrist
- Community-based nurse
- Community-based social worker
- Community-based pharmacist
- Community-based behavioral health worker
- Community-based psychiatrist
- Community-based advocate
- Community-based coach
- Community-based peer
- Community agency
- **X** ED Physician
- **X** ED Physician assistant
- Palliative care
- EMS
- Skilled nursing facility
- Home health agency
- **X** Lean Coach
- **X** Patient registration staff
- **X** Radiology staff
- **X** Laboratory staff
- **X** Nursing supervisor

Service Availability

- Mon. – Fri.
- Weekends
- **X** 7days
- Holidays
- Days
- **X** Evenings
- Nights
- Off-Shift

  Hours ____

Service worksheet – Reduce patient harm for admissions and ED visits

Service Delivered
- **X** Early rescue
- **X** Rapid response activation
- **X** Expansion of PeraHealth
- **X** Implement culture of safety
- **X** Leader & staff education
- **X** Implement culture tools & tones
- **X** Implement daily safety huddles
- **X** Implement surgical safety checklist
- **X** Implement rounding to influence

Personnel Type
- **X All Signature staff**
- **X** Hospital-based nurse
- **X** Hospital-based social worker
- **X** Hospital-based pharmacist
- **X** Hospital-based NP/APRN
- **X** Hospital-based behavioral health worker
- **X** Hospital based psychiatrist
- Community-based nurse
- Community-based social worker
- Community-based pharmacist
- Community-based behavioral health worker
- Community-based psychiatrist
- Community-based advocate
- Community-based coach
- Community-based peer
- Community agency
- Physician
- Palliative care
- EMS
- Skilled nursing facility
- Home health agency
- Other: _____
- Other: _____
- Other: _____
- Other: _____
- Other: _____

Service Availability
- **X** Mon. – Fri.
- **X** Weekends
- **X** 7days
- **X** Holidays
- **X** Days
- **X** Evenings
- **X** Nights
- Off-Shift Hours ____

Service mix (1 of 2)

Service	By Whom	How Often	For How Long
Coordinating care post-hospital and in-home with Homeward Bound team	COPD Access Coordinator 1.0 FTE	Identification of patients and work begins in hospital	Coordination of care and work of home-based team for as long as needed based on clinical changes
Telehealth nursing support for CHF and COPD patients	Telehealth RN 1.0 FTE Split b/w SH & HPC	Phone calls daily and on weekends; in-home visits as necessary	Based on patient preference and stability; approximately 6 months – 1 year
Coordinate community-based services for HU patients discharged from the ED	Community Healthcare Worker 1.0 FTE	Meeting with patients before d/c	30 – 60 days post discharge
Medication access, education, and management	Pharmacists 2 FTE	Meeting with patients before discharge	Follow-up phone call within 48 – 72 hours post discharge
Ensures key meds in hand at d/c through pharmacy partnership	Pharmacy Tech 1.0 FTE	Meeting with patients before discharge	1 – 2 days before patients are discharged
Coordinating palliative care services; provide warm-hand off to SMG services and/or hospice care	Palliative Care RN 1.0 FTE	Weekly consults for 5 patients/day x 45 min/each	While patient is in hospital
Coordinate outpatient and community-based services for HU patients transitioning from inpatient to home/SNF/NH/Rehab; work with complex care team to provide seamless care	NP – 1.0 FTE	Meeting with patients before d/c	30 – 60 days post discharge
Coordinate care for patients in complex care clinic	Care Manager 1.0 FTE	Weekly	30 – 60 days post discharge
Motivational interviewing and coordination of behavioral health services with community providers	Social Worker 1.0 FTE	Weekly	30 – 60 days post discharge

Service mix (2 of 2)

Service	By Whom	How Often	For How Long
Oversee redesign of work flow in ED	Lean Coach 1.0 FTE	Assigned to 3 – 11 pm shifts	2 years
Assigned to 3 – 11 pm shifts	RN 1.0 FTE	Assigned to 3 – 11 pm shifts	2 years
# FTE/units of service hired at my organization		12	
# FTE/units of service contracted		0	

List of service providers/community agencies

Type of Service Provider	Community Agency Name	New or Existing Relationship
Home-based nursing	Brockton Visiting Nurses Association	Existing and expanding
Nursing colleges	Fisher College, Curry College, Massassoit Community College	New
Nursing college	Brockton School of Nursing	Existing
Hospice, in-home care	Old Colony Elder Services, Old Colony Hospice Care, Partners Home Health Services, Alzheimer's Association	Existing and expanding
Pharmacy	Walgreens	Existing and expanding
Diabetes and Pre-Diabetes Management Programs	Old Colony YMCA	Existing and expanding
Patient-centered medical homes outpatient clinics	Signature Medical Group	Existing
Behavioral health	South Bay Mental Health	Existing

Summary of services

ED

High risk patients identified for HU and/or risk for readmission using:

- LACE and/or other assessment at presentation
- Registration flag identifying patient as a HU, readmission.
- Verisk identifies top 1% readmission risk pts.

ED, Hospitalist, nursing, CM, LICSW deescalate acute crisis and develop/update care plan (ICP).

If appropriate, evaluate for treat and return to SNF/NH/Rehab/Home:

- CHW coordinates community-based services (if not admitted)
- Review, update, and/or develop ICP
- If HU, engage Complex Care Team case management; if not, enroll in CCT if appropriate
- Notify PCP of admission to hospital

During inpatient stay

Reassess with LACE (or other) for risk of readmission

Social work coordinates community-based services

Assess for Palliative Care consult via:

- Palliative Care rounds to identify patients
- Clinicians' request of Palliative Care consult

Palliative Care consult and MOLST completion as appropriate

CCT participates in daily rounding

Pharmacist reviews therapeutic goals, medication regimes, medication affordability, compliance, and provides education

At discharge

Case management and hospitalists, with Complex Care Team, confirm rescue plan and outpatient services

Enroll patients with CHF and COPD in Homeward Bound, as appropriate

Pharmacy Tech provides medications

In community

Social Work Department coordinates community-based services

Homeward Bound for CHF & COPD patients

- Nursing students conduct in-home visits to provide support & care coordination
- Telehealth RNs collect biometrics & interact with home-based student teams
- Virtual pharmacist medication reconciliation

Home monitoring for patients with diabetes. Biometric data and care plans automatically integrate in to SMG patient portal. Viewable by care manager and PCP.

Pharmacist calls at 48-72 hours to address concerns and assess medication therapy

CCT provides comprehensive care management in home/facility/community:

- CCT utilizes/updates ICPs, provides care coordination, and education on self-care and community-based resources
- LICSW provides psycho-social assessment, coordinates & ensures community-based services
- Care Manager is liaison between outpatient and community-based services
- NP responds to clinical changes and coordinates palliative care services

Cohort-wide standard measures – Hospital utilization measures

Data elements	All	Target Population
1. Total Discharges from Inpatient Status (“IN”)	x	x*
2. Total Discharges from Observation Status (“OBS”)	x	x*
3. SUM: Total Discharges from IN or OBS (“ANY BED”)	x	x*
4. Total Number of Unique Patients Discharged from “IN”	x	x
5. Total Number of Unique Patients Discharged from “OBS”	x	x
6. Total Number of Unique Patients Discharged from “ANY BED”	x	x
7. Total number of 30-day Readmissions (“IN” to “IN”)	x	x*
8. Total number of 30-day Returns (“ANY BED” to “ANY BED”)	x	x
9. Total number of 30-day Returns to ED from “ANY BED”	x	x
10. Readmission rate ("IN readmissions" divided by "IN")	x	x*
11. Return rate (ANY 30-day Returns divided by “ANY BED”)	x	x

Standard exclusions: <18, OB (DRG 765-782), discharged deceased or transfer to acute hospital

Note: Data elements that do not have a population selected are not required for measurement. Not all measures are required for all hospitals.

*includes measurement for “High Risk” and “Active” populations

Cohort-wide standard measures – ED utilization measures

Data Elements	All	Target Population
12. Total number of ED visits	x	x
13. Total number of unique ED patients	x	x
14. Total number of ED visits, primary BH diagnosis		
15. Total number of unique patients with primary BH diagnosis		
16. Total number of ED visits, *any* BH diagnosis		
17. Total number of unique patients with any BH diagnosis		
18. Total number of 30-day ED revisits (ED to ED)	x	x*
19. Total number of 30-day revisits (ED to ED), primary BH diagnosis		
20. Total number of 30-day revisits (ED to ED), any BH diagnosis		
21. ED revisit rate	x	x*
22. ED BH revisit rate (primary BH diagnosis only)		
23. ED BH revisit rate (any BH diagnosis)		
24a. Median ED LOS (time from arrival to departure, in minutes)		
24b. Min ED LOS (time from arrival to departure, in minutes)		
24c. Max ED LOS (time from arrival to departure, in minutes)		
25a.Median ED LOS (time from arrival to departure, in minutes), primary BH diagnosis		
25b. Min ED LOS (time from arrival to departure, in minutes), primary BH diagnosis		
25c. Max ED LOS (time from arrival to departure, in minutes), primary BH diagnosis		
26a. Median ED LOS for ED boarders per DPH boarder definition (patients with a primary behavioral health diagnosis who remain in the ED for 12 or more hours from ED arrival to ED departure)		
26b. Min ED LOS for ED boarders per DPH boarder definition (patients with a primary behavioral health diagnosis who remain in the ED for 12 or more hours from ED arrival to ED departure)		
26c. Max ED LOS for ED boarders per DPH boarder definition (patients with a primary behavioral health diagnosis who remain in the ED for 12 or more hours from ED arrival to ED departure)		

Standard exclusions: <18, OB (DRG 765-782), discharged deceased or transfer to acute hospital

Note: Data elements that do not have a population selected are not required for measurement. Not all measures are required for all hospitals.

*includes measurement for “High Risk” and “Active” populations

Cohort-wide standard measures – Service delivery measures

Data Elements	Target Population
27. Total number of unique patients in the target population	x*
28. Number of acute encounters for target population patients	x
29. For acute encounters in measure #28, number of these with any CHART service provided after discharge and within 48 hours	x
30. Total number of contacts for the target population	x*
31. Average number of contacts per patient served	x
32a. Min number of contacts for patients served	x
32b. Max number of contacts for patients served	x
33. Number of units of service provided by service modality (including, e.g., phone call, virtual interaction, face to face in office, face to face in home, etc.)	x
34. Number of units of service provided, by service types (e.g., care coordination, medication optimization, clinical care, counseling, needs assessment, etc.)	x
35. Number of units of service provided, by role type (NP, LICSW, Pharmacist, Community Health Worker, Peer)	x
36. Average time (days, months) enrolled in CHART program per patient	x
37. Range time (days, months) enrolled in CHART program per patient	x
38. Proportion of target population patients with care plan	x

Standard exclusions: <18, OB (DRG 765-782), discharged deceased or transfer to acute hospital

Note: Data elements that do not have a population selected are not required for measurement. Not all measures are required for all hospitals.

*includes measurement for “High Risk” and “Active” populations

Cohort-wide standard measures – Payer mix specific measures

Data Elements	Medicare	Medicaid	Commercial
39. Count of patients in the Target Population	x	x	x

Standard exclusions: <18, OB (DRG 765-782), discharged deceased or transfer to acute hospital

Note: Data elements that do not have a population selected are not required for measurement. Not all measures are required for all hospitals.

Program-specific measures (1 of 2)

Measure Definition	Numerator	Denominator	Based on your enabling technology decision, how will you collect this information?
How high-risk Pts. are identified (ED, inpt, Verisk)	Method used to identify patient	Pts. identified as high-risk	Meditech
Number of acute encounters for high-risk patients	Count of IN, OBS, and ED encounters for patients identified as high-risk by program specific measure	N/A	
Number of acute encounters for high-risk patients with a CHART service within 48 hours	The count of encounters identified in the measure: Number of acute encounters for high-risk patients, that have a CHART service provided within 48 hours	N/A	
PCP f/u appointments	# of Pts. in the denom with PCP f/u appointments	Pts. identified as HU or high-risk	Meditech
Specialist f/u appointments	# of Pts. in the denom with specialist f/u appointments, by specialty	Pts. identified as HU or high-risk	Meditech
Complex Care Team – Panel Attrition	Pts. not followed until formally d/c by CCT	Pts. followed by CCT	Meditech
Pharmacy- Medication on Discharge	# of Pts. in denom who receive medication upon d/c	Pts. identified as HU or high-risk	Meditech
Length of stay- patient turnaround time	ED LOS for low acuity ED visits between 3:00 and 11:00pm	N/A	Meditech

Program-specific measures (2 of 2)

Measure Definition	Numerator	Denominator	Based on your enabling technology decision, how will you collect this information?
Culture of Safety- Rapid Response Team (RRT) deployment	# of times RRT is deployed	N/A	Meditech
Culture of Safety- Peratrend training	# and % of staff trained in Peratrend	N/A	Manual database
Culture of Safety- Peratrend satisfaction	Satisfaction score ranges	# of staff trained in Peratrend	Manual database
Culture of Safety- Composite measure of patient harm	Monthly composite measure = sum of unplanned CCU transfers; inpatient falls; ED falls; clean surgical site infections; medication errors; deaths	N/A	Meditech

Continuous improvement plan

1. How will the team share data? Describe.	Data will be shared and discussed weekly and monthly during our internal CHART meetings.
2. How frequently will you (PM, Investment Director) look at the data (e.g., weekly)? Describe.	The CHART Coordinator will review data on at least a weekly basis, but will review data more frequently as needed.
3. How often will your executive team (VPs, C-suite) review CHART project reporting (e.g., monthly)? Describe.	Most of the executive team is part of the CHART team which will review data weekly.
4. How often will your front line CHART staff (SW, care team) review reporting (e.g., weekly)? Describe.	Front line staff will review data based on the specific metric. Some metrics will have daily reporting (e.g., ED throughput time, telehealth monitoring, complex care coordination) and all will be reviewed monthly at the very least. It is important to note that all teams in Signature review benchmarks in process improvement projects on a daily basis with monthly graphing of progress on balanced score cards.
5. How often will your community partners review data (e.g., weekly, monthly)? Describe.	At least monthly.
6. Which community partners will look at CHART data (specific providers and agencies)? Describe.	The BVNA, hospice and in-home care partners have weekly meetings with Signature's teams during which data can be shared as necessary. These partners will formally review data at least once/month. Walgreens has a representative in the hospital every day and will review data weekly with the Director of Pharmacy to ensure timely distribution of medications.
7. Will the quality committee of your board review CHART reporting (e.g., quarterly)? Describe.	The Quality Committee will review CHART data and reports on a monthly basis.

Continuous improvement plan

8. Who will collect measures and produce reporting for Cohort-wide and program specific measure (e.g., Data Analyst, PM, ID)? Describe.	**Cohort-Wide**	**Program specific**
	Programmer Analyst/Database Developer	An administrator is assigned the task of collecting and generating reports on program-specific metrics.
9. What is your approximate level of effort to collect these metrics? Describe.	**Cohort-Wide**	**Program specific**
	Most of these metrics are already collected as part of IT system and reports are generated whenever necessary.	Collection of program-specific metrics is part of routine data collection currently.
10. How will you ensure that you are able to collect both your program specific and the cohort-wide measures? Describe.	The CHART coordinator will be responsible for making sure data is collected and reported as described in the proposal.	
11. How will you know when to make a change in your service model or operational tactics? Describe.	Signature has a robust system for process improvement in place that allows for immediate recognition of a problem with procedures for solving problems in real time. All initiatives have daily/weekly/monthly targets for performance expectations which are monitored during daily huddles and updated on balanced score cards.	
12. Other details:		

Enabling Technologies plan

Functionality	User(s)	Vendor	Cost
Patient condition monitoring system	Hospital staff in all units – med/surg, ED, ICC, and transitional care	PeraHealth, PeraTrend product	$370,600, including 2 years of license fees and technical support services $10,500, training $25,200, hardware
Daily monitoring of biometric data, virtual pharmacy support	CHF and COPD patients, Nursing Students, Nurse Coordinator, Telehealth Nurse,	iGetBetter	$193,080

Enabling Technologies plan – Q&A

- How are you going to identify target population patients in real-time?
  - EDIS flag of high-risk from roster; Verisk; LACE in inpatient setting; LACE and/or SW assessment in ED
- How will you measure what services were delivered by what staff?
  - Meditech and in-house database.
- How will you measure outcome measures monthly? What tech will be used to report on cohort-wide measures?
  - Meditech
- What tool/platform will you use to facilitate cross-setting and multi-disciplinary coordination of care?
  - Transition of care doc from Meditech & SBAR tools.
- Where will individual care plans reside, and what is the plan for making them available on a need-to-know basis 24/7 in the ED, hospital, and ambulatory settings?
  - For High Risk patients with an SMG PCP, Individualized Care Plans are shared via Meditech and AllScripts. High risk patients who have a PCP outside of the SMG system – the High Risk Care Team will ensure the updated ICP and sent to the PCP.
- Do you have a method for identifying what clinical services your target population accesses?
  - We will work with our IT department to build a database and communication system that allows the ED RN and complex care teams to identify, enroll, and track high risk patients

Other essential investments

Other Investments	Approximate Budget Required
Professional development to support CHART initiative, which includes training on palliative care, motivational interviewing, and trauma-sensitivity	$18,600
HPI Safety Culture Intervention – 2 years of training and consultation	$192,564
Adams Strategy Group coaching & education for executive staff ($150,000/year; cost split between HPC and Signature Healthcare)	$300,000

Key dates

Key milestone	Date
Launch date (beginning of your 24 month Measurement Period)	October 1, 2015
Post jobs	July 8, 2015
New hires made	7 out of 11 new hires as of 8/14/15
Execute contracts with service delivery partners: Adams Strategy Group, HPI, PeraHealth, iGetBetter, iHealth	Completed in FY14
Staffing to handle 50% of planned patient capacity for readmission reduction initiatives	September 2015
Staffing to handle 100% of planned patient capacity for readmission reduction initiatives	October 2015
Test report of services measures	IT database build in process; will be operational 101/1/2015
Enabling Technology – PeraHealth testing initiated	Completed in FY14
Enabling Technology – PeraHealth – expansion will happen unit by unit until completed in all 10 units in hospital; 2 units already have PeraHealth	Expansion will begin October 2015
Trainings completed - Palliative Care, Lean, PeraHealth – Training on PeraHealth will take place concurrently with expansion Culture of Safety – ALL staff are part of Culture of Safety trainings in Sept. and Oct. 2015	Lean training within first month of hire; Palliative Care – Year 2; Culture of Safety – 10/31/2015
First patient seen	October 1, 2015

Community partners/subcontractors

Name	Business Address	Website	Contact Name	Contact Title	Contact Phone Number	Contact Email Address
Adams Strategy Group	235 West Main Street. No.104, Ligonier, PA 15658	www.adamsstrategy.com/	David Adams	President	724-441-4105	david@operationalexcellence.com
PeraHealth	6302 Fairview Road, Suite 310 Charlotte, NC 28210	www.perahealth.com/	Steve Pennock	Vice President	704-385-4660	spennock@perahealth.com
Health Performance Improvement	5041 Corporate Woods Drive, Suite 180, Virginia Beach, VA 23462	www.hpiresults.com	Craig Clapper	Founding Partner & Chief Knowledge Officer	757-226-7479	craig@hpiresults.com
iGetBetter	383 Boston Post Road, Sudbury, MA 01776	http://www.igetbetter.com/	David Lebudzinski, MD	Chief Medical Officer	781-893-4442	david@igetbetter.com